11S 5831510 A	19981103 PTC electrical devices for installation on printed circuit boards	338/22R Zhang, Michael et al.
US 5852397 A	• !	338/22R Chan, Chi-Ming et al.
US 5864281 A	19990126 Electrical devices containing a conductive polymer element having a fractured surface	338/22R Zhang, Michael et al.
US 4237441 A	19801202 Low resistivity PTC compositions	
US 4304987 A	19811208 Electrical devices comprising conductive polymer compositions	
US 4514620 A	19850430 Conductive polymers exhibiting PTC characteristics	219/553 Cheng, Tai C. et al.
US 4534889 A	19850813 PTC Compositions and devices comprising them	
US 4545926 A	19851008 Conductive polymer compositions and devices	
US 4724417 A	19880209 Electrical devices comprising cross-linked conductive polymers	~
US 4774024 A	19880927 Conductive polymer compositions	252/511 Deep, Marguerite E. et al.
US 4935156 A	19900619 Conductive polymer compositions	_
US 5049850 A	19910917 Electrically conductive device having improved properties under electrical stress	338/22R Evans, Joseph H.
US 5378407 A	19950103 Conductive polymer composition	252/513 Chandler, Daniel et al.
US 5451919 A	19950919 Electrical device comprising a conductive polymer composition	338/22R Chu, Edward F. et al.
US 5582770 A	19961210 Conductive polymer composition	252/511 Chu, Edward F. et al.
US 5747147 A	19980505 Conductive polymer composition and device	428/209 Wartenberg, Mark F. et al.
US 5801612 A	19980901 Electrical device	338/22R Chandler, Daniel A. et al.
US 6358438 B1	20020319 Electrically conductive polymer composition	252/511 Isozaki, Tsutomu et al.
US 6570483 B1	20030527 Electrically resistive PTC devices containing conductive polymers	338/22R Chandler, Daniel A. et al.
US 4800253 A	19890124 Electrical devices containing conductive polymers	219/553 Kleiner, Lothar et al.
US 6429533 B1	20020806 Conductive polymer device and method of manufacturing same	257/783 Li, Wen Been et al.
US 6380839 B2	JS 6380839 B2 20020430 Surface mount conductive polymer device	338/22R Li, Lawrence et al.
US 6242997 B1	20010605 Conductive polymer device and method of manufacturing same	
US 6236302 B1	20010522 Multilayer conductive polymer device and method of manufacturing same	
US 6172591 B1	20010109 Multilayer conductive polymer device and method of manufacturing same	338/22R Barrett, Andrew Brian
US 4593181 A	19860603 Heating element having deformed buss bars	219/541 Jensen, Michael L. et al.
US 6300859 B1		~
US 6223423 B1	20010501 Multilayer conductive polymer positive temperature coefficient device	
US 6211771 B1		-
US 6124781 A	20000926 Conductive polymer PTC battery protection device and method of making same	
US 6023403 A	20000208 Surface mountable electrical device comprising a PTC and fusible element	361/106 McGuire, Katherine M. et al.
US 6020808 A	20000201 Multilayer conductive polymer positive temperature coefficent device	338/22R Hogge, Steven Darryl
US 5907272 A	19990525 Surface mountable electrical device comprising a PTC element and a fusible link	œ
US 5166658 A	19921124 Electrical device comprising conductive polymers	
US 4967176 A	19901030 Assemblies of PTC circuit protection devices	
US 6157289 A	20001205 PTC thermistor	338/22R Kojima, Junji et al.

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1/106 Gronowicz, Jr., William	1	3/136 Thomas, Brian et al.	3/92 Volz, Andreas et al.	623 Blecha, Vladimir et al.		Ī	۵.		l	١.,	1		7/777 Khandroe Joor V at al
361/106	1	-	429/92	29/623	338/22R	338/20	۵.		\top	١.,	1	338/22R	777/72
evice	Transistor package having a series connected thermistor for protection from thermal destructid 257/467	of rechargeable elements	e electrochemical battery	Ise device		method for making same			20000125 Paired multi-lavered dielectric independent passive component architecture resulting in differer861/56	resistant organic cores		shaped laminar conductive terminals	
TC overcurrent protection device	e having a series connected	lods for protection of recharge	20001107 Protective device for a repeatedly rechargeable electrochemical battery	acturing a surface-mounted fuse device		evice and	_	ty capacitor	ed dielectric independent pas	packages with tear resistant o	protection devices	C devices having shaped lar	8
19981006 Multiple element PTC overcurrent pr	19980609 Transistor packag		001107 Protective device	19990831 Method of manufacturing a surface-	20020521 Circuit protection devices	20010109 Over-voltage protection device and	19981222 Face-up semiconductor chip assembly	20000725 High energy density capacitor	000125 Paired multi-laver	19920407 Electronic circuit packages with tear	19881025 Composite circuit protection devices	19920218 Self-regulating PTC devices having	20021015 Stacked chip assembly
US 5818676 A 19	╁	6331763 B1	+		-	+	+-	\top	\top	1	1	†	—

L Number	Hits	Search Text	DB	Time stamp
18	2136	(ptc polymeric) and (conductive	USPAT;	2003/09/03
		insulating) nearl polymer and device and component and (subdivid\$3 divid\$3 cut\$4 sever\$4)	EPO; JPO	14:59
19	178	((ptc polymeric) and (conductive insulating) nearl polymer and device and component and (subdivid\$3 divid\$3 cut\$4 sever\$4)) and 338/\$.ccls.	USPAT; EPO; JPO	2003/09/03
21	160	((ptc polymeric) and (conductive insulating) near1 polymer and device and component and (subdivid\$3 divid\$3 cut\$4 sever\$4)) and 29/\$.ccls.	USPAT; EPO; JPO	2003/09/03
22	118	(ptc polymeric) and conductive adj polymer and insulating adjl polymer and device and component and (subdivid\$3 divid\$3 cut\$4 sever\$4)	USPAT; EPO; JPO	2003/09/03 15:13
23	50	(ptc polymeric) and conductive adj polymer and insulating adj1 polymer and laminat\$3 and component and (subdivid\$3 divid\$3 cut\$4 sever\$4)	USPAT; EPO; JPO	2003/09/03 15:39
24	12	circuit adj protection and (ptc and polymeric) and laminat\$3 and conductive and stack\$3	USPAT; EPO; JPO	2003/09/03 15:34
41 .	3	circuit adj protection and (ptc polymeric) and laminat\$3 and conductive and insulat\$3 adj1 polymer\$2 and stack\$3	USPAT; EPO; JPO	2003/09/03 15:36
42	11	circuit adj protection and (ptc polymeric) and laminat\$3 and conductive adj1 polymer\$2 and stack\$3 and insulat\$3	USPAT; EPO; JPO	2003/09/03 15:37
44	15	(ptc polymeric) and conductive adj polymer and insulating adj1 polymer and laminat\$3 and stack\$3 and (subdivid\$3	USPAT; EPO; JPO	2003/09/03 15:43
45	1	divid\$3 cut\$4 sever\$4) ("4959505").PN.	USPAT	2003/09/03
-	1	("5831510").PN.	USPAT	2003/08/06 15:51
_	1	("5852397").PN.	USPAT	2003/08/06 15:53
_	1	("5864281").PN.	USPAT	2003/08/06 15:56
-	1	("4237441").PN.	USPAT	2003/08/06
_	1	("4304987").PN.	USPAT	2003/08/06
_	1	("4514620").PN. ("4534889").PN.	USPAT	2003/08/06 15:57 2003/08/06
	1	("4545926").PN.	USPAT	15:57
_	1	("4724417").PN.	USPAT	15:57 2003/08/06
_	1	("4774024").PN.	USPAT	15:58 2003/08/06
_	1	("4935156").PN.	USPAT	15:59 2003/09/03
_	1	("5049850").PN.	USPAT	15:55 2003/08/06
_	1	("5378407").PN.	USPAT	15:59 2003/08/06
_	1	("5451919").PN.	USPAT	15:59 2003/08/06
_	1	("5582770").PN.	USPAT	16:00 2003/08/06
_	1	("5747147").PN.	USPAT	16:00 2003/08/06
_	1	("5801612").PN.	USPAT	16:00 2003/08/06 16:02
	<u> </u>		<u> </u>	10.02

=	1	("6358438").PN.	USPAT	2003/08/06 16:03
_	1	("6570483").PN.	USPAT	2003/08/06 16:06
_	1	("4689475").PN.	USPAT	2003/08/06 16:06
_	1	("4800253").PN.	USPAT	2003/08/06 16:08
-	1	("6331763").PN.	USPAT	2003/08/06 16:09
-	75	polymeric and laminar and external with	USPAT; EPO; JPO	2003/08/06 16:28
-	184	polymeric and laminar and external and conductive with surface and electrode	USPAT; EPO; JPO	2003/08/06 16:29
-	134	(polymeric and laminar and external and conductive with surface and electrode) and (subdivid\$3 cut\$4 dic\$3)	USPAT; EPO; JPO	2003/08/06 16:31
_	9	("3775725" "4486737" "4486738" "4689475" "4777718" "4924074" "4977309" "5216404" "5347258").PN.	USPAT	2003/08/06 16:37
_	38	composite adj1 polymeric and laminat\$3 and surface and electrode and connect\$3 and (divid\$3 subdivid\$3 cut\$4 sever\$4)	USPAT; US-PGPUB	2003/08/06 18:41
-	131	ptc and polymeric and laminat\$3 and surface and electrode and connect\$3 and (divid\$3 subdivid\$3 cut\$4 sever\$4)	USPAT; EPO; JPO	2003/08/06 18:43
-	1	"6157289".PN.	USPAT	2003/08/06 18:44
-	488	ptc and polymeric and device and component and (subdivid\$3 divid\$3 cut\$4 sever\$4)	USPAT; EPO; JPO	2003/09/03 14:39
_	87	(ptc and polymeric and device and component and (subdivid\$3 divid\$3 cut\$4 sever\$4)) and electrical with (mount\$3	USPAT; EPO; JPO	2003/08/07 11:06
_	15	attach\$3) ptc and polymeric and device and component with electrical with (mount\$3 attach\$3)and (subdivid\$3 divid\$3 cut\$4 sever\$4)	USPAT; EPO; JPO	2003/08/07 14:13
_	1	6518731.pn.	USPAT; EPO; JPO	2003/08/07 17:58
-	1	"6331763".PN.	USPAT	2003/08/07
_	11	("4509102" "5150271" "5177426" "5363030" "5539299" "5602460" "5625273" "5710505" "5763929"	USPAT	2003/08/07 13:49
_	1	"5783322" "5789900").PN. "6331763".PN.	USPAT	2003/08/07 13:51
_	11	("4509102" "5150271" "5177426" "5363030" "5539299" "5602460" "5625273" "5710505" "5763929"	USPAT	2003/08/07 14:10
_	8	"5783322" "5789900").PN. 5789900.URPN.	USPAT	2003/08/07 14:11
_	13	5783322.URPN.	USPAT	2003/08/07 14:12
-	111	29/623,602.1,830,846,609,412,417,854.ccls. and circuit with protection	USPAT; EPO; JPO	2003/08/07 14:15
-	15	(29/623,602.1,830,846,609,412,417,854.ccls and circuit with protection) and		2003/08/07 17:54
_	272	<pre>pplympolymeric) and pattern and laminat\$3 and electrical with (component device chip) with (attach\$3 mount\$3) and (dicing</pre>	USPAT; EPO; JPO	2003/08/07 17:59
_	257	cut\$4 divid\$3 subdivid\$3 severring) ((ptc polymeric) and pattern and laminat\$3 and electrical with (component device chip) with (attach\$3 mount\$3) and (dicing cut\$4 divid\$3 subdivid\$3	USPAT; EPO; JPO	2003/08/07 18:00
		severring)) and connect\$3		

				T 0 0 0 0 10 0
<u> </u>	2452	(polymer\$2 with composite ptc) and	USPAT;	2003/09/02
		component and protect\$3 and (cut\$4	EPO; JPO	15:18
		divid\$3 separat\$3) and connect\$3 and		
		pattern\$3		
-	90	((polymer\$2 with composite ptc) and	USPAT;	2003/09/02
		component and protect\$3 and (cut\$4	EPO; JPO	15:24
		divid\$3 separat\$3) and connect\$3 and		
1		pattern\$3) and 29/\$.ccls.		
-	0	((polymer\$2 with composite ptc) and	USPAT;	2003/09/02
		component and protect\$3 and (cut\$4	EPO; JPO	15:24
		divid\$3 separat\$3) and connect\$3 and		
		pattern\$3) and 200/\$.ccls.		1
-	13		USPAT;	2003/09/02
		component and protect\$3 and (cut\$4	EPO; JPO	15:27
		divid\$3 separat\$3) and connect\$3 and		
		pattern\$3) and 320/\$.ccls.		
_	11		USPAT	2003/09/02
		"5363030" "5539299" "5602460"		15:27
		"5625273" "5710505" "5763929"		
		"5783322" "5789900").PN.		
-	84		USPAT;	2003/09/02
		component and protect\$3 and (cut\$4	EPO; JPO	15:50
	:	divid\$3 separat\$3) and connect\$3 and		
		pattern\$3) and 361/\$.ccls.		
-	66		USPAT;	2003/09/02
		component and protect\$3 and (cut\$4	EPO; JPO	15:57
		divid\$3 separat\$3) and connect\$3 and		
		pattern\$3) and 338/\$.ccls.	********	2002/00/02
_	211		USPAT;	2003/09/02 15:57
		component and protect\$3 and (cut\$4	EPO; JPO	15:5/
		divid\$3 separat\$3) and connect\$3 and		
		pattern\$3) and 257/\$.ccls.	USPAT	2003/09/02
-	53	4780598.URPN.	USPAT	17:45
		F762020 *******	USPAT	2003/09/02
_	9	5763929.URPN.	USPAI	18:53
	_		USPAT	2003/09/02
_	6	("3444399" "3708720" "3809928"	USPAI	18:53
	39	"4117508" "4937696" "5227946").PN.	USPAT	2003/09/02
-	39	490/1/0.UKPN.	USPAI	19:00
				1 12.00